Application No. 10/560,800 Paper Dated: October 23, 2006 Attorney Docket No. 0815-053671 Ipw

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.

10/560,800

Applicant

Jiming Li et al.

Filed

May 12, 2006

Title

Swirl-Reversal Abradable Labyrinth Seal

Art Unit

3676

**Examiner Name** 

Not Yet Assigned

Confirmation No.

7396

Customer No.

28289

MAIL STOP AMENDMENT Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby submit this Information Disclosure Statement together with a completed Form PTO/SB/08A, PTO/SB/08B, and copies of the cited non-patent literature.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 23, 2006.

Jacqueline C. Vigna

(Name of Person Mailing Paper or Fee)

Signature

10/23/2006

Date

Application No. 10/560,800 Paper Dated: October 23, 2006

Attorney Docket No. 0815-053671

This application is the United States national phase of PCT/US2004/19436.

The International Search Report (ISR) issued in connection with the corresponding PCT

application was already received by the Examiner. The prior art listed in the ISR, as well as

other prior art known to applicants, are submitted herewith. Also enclosed is a copy of the

International Preliminary Report on Patentability which issued in the PCT application.

Pursuant to 37 C.F.R. § 1.97(b)(3), no fee is believed to be due for the filing of

this Information Disclosure Statement as it is being submitted before a first Office Action on

the merits. Nevertheless, the Commissioner for Patents is hereby authorized to charge any

additional fees which may be required to Deposit Account No. 23-0650. One original and a

copy of this Information Disclosure Statement are enclosed.

Respectfully submitted,

THE WEBB LAW FIRM

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OTP E 1807 A 1006 A 100 A 100

PTO/SB/08a (07-05) Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for for	m 1449 Ä/PTO			Complete if Known			
INFOR	44710115	1001.00	LIDE	Application Number	10/560,800		
_	ATION E	_	_	Filing Date	May 12, 2006		
STATE	MENT BY	APPLICA	ANT	First Named Inventor	Jiming Li		
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				Examiner Name	Not Yet Assigned		
Sheet	1	of	3	Attorney Docket Number	0815-053671		

			U.S. PATENT I	DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Document Number  Number - Kind Code <sup>2 (if known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 881,474	03-10-1908	Jude	
		US- 2,963,307	12-06-1960	Robo	
		US- 3,575,523	04-20-1971	Gross, Jr.	
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		US- 5,190,440	03-02-1993	Maier et al.	

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Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,				
110.	Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear				
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	Cite No. <sup>1</sup>	Cite No. <sup>1</sup> Foreign Patent Document	Cite No.   Foreign Patent Document   Publication Date	Cite No. 1  Foreign Patent Document  Publication Date  Name of Patentee or  MM_DD-YYYY  Applicant of Cited Document	Cite No.   Foreign Patent Document   Publication Date   Name of Patentee or   Pages, Columns, Lines,   WM-DD-YYYY   Applicant of Cited Document   Where Relevant Passages			

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Substitute for form	n 1449A/PTO			Complete if Known			
INICODA	ATION D		UDE	Application Number	10/560,800		
	TATION D			Filing Date	May 12, 2006		
STATEN	MENT BY	APPLICA	ANT	First Named Inventor	Jiming Li et al.		
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Sheet	2	of	3	Attorney Docket Number	0815-053671		

			U.S. PATENT I	OCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Document Number  Number - Kind Code <sup>2 (if known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		US- 5,632,598	05-27-1997	Maier			
		US- 5,967,746	10-19-1999	Hagi et al.			
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FOREIGN PATENT DOCUMENTS								
	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
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Substitute for fo	orm 1449B/PTO			Comple	te if Known
*****				Application Number	10/560,800
_	RMATION			Filing Date	May 12, 2006
STATI	EMENT B	Y APPLI	CANT	First Named Inventor	Jiming Li et al.
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	(Ose as many snee	is as necessary)		Examiner Name	Not Yet Assigned
Sheet	3	of	3	Attorney Docket Number	0815-053671

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		E. A. SOTO et al., "Experimental Rotordynamic Coefficient Results for (a) a Labyrinth Seal With and Without Shunt Injection and (b) a Honeycomb Seal", Journal of Engineering for Gas Turbines and Power, January 1999, pp 153-158, Vol. 121	
		NASA Conference Publication 2409, "Instability in Rotating Machinery", June 10-14, 1985, National Aeronautics and Space Administration, pp. 1-13, Reproduced by U.S. Department of Commerce, National Technical Information Service, Springfield, VA	
		K. KWANKA, "Improving the Stability of Labyrinth Gas Seals", Journal of Engineering for Gas Turbines and Power, April 2001, pp. 383-387, Vol 123	
		D. W. CHILDS, ERIAN BASKHARONE, CHRISTOPHER RAMSEY, Test Results for Rotordynamic Coefficients of the SSME HPOTP Turbine Interstage Seal With Two Swirl Brakes, ASME J. of Tribology, Vol. 113, pp. 577-583 / 1991	
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Examiner	Date	
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.